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WATER SUPPLY OUTLOOK FOR WASHINGTON



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

AS OF
MAY 1, 1975

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*Cover Photo: Cabins near Sacajawea Snow Course
in Bridger Mountains, Montana.*

SFS PHOTO 11-P480-15

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1218 S. W. Washington St., Portland, Oregon 97205
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR WASHINGTON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

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DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

Report prepared by

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SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201

WATER SUPPLY OUTLOOK

State of Washington
May 1, 1975

* * * * *

* It appears that the state of Washington will enjoy another irrigation *
* season without the fear of water shortages. All streams are expected *
* to flow above normal with only a few approaching the dangerous level. *
* Some local tributaries to the major river basins will undoubtedly *
* experience flood damage from localized conditions, but major damage is *
* not expected. The National Weather Service River Forecast Center still *
* expects flooding to occur on the Okanogan River where the flood stage *
* is only 15 feet and the NWS forecast is for a probable peak flow from *
* 15½ feet to 17½ feet. The Methow Drainage is approaching the flood area *
* with a flood stage of 10 feet and a probable discharge between 9 and 11 *
* feet. The Yakima River at Parker is also in this possibility area with *
* a flood stage of 10 feet and probable forecast range between 9 and 10½ *
* feet. The rate and timing of this peak discharge is totally dependent *
* upon the subsequent weather patterns. Continued cold temperatures and *
* above normal precipitation will increase the probability of this flood *
* stage being met and exceeded, together with high abnormal weather dur- *
* ing the critical melt period which can cause the peak to exceed indica- *
* ted ranges. Snow packs generally increased in water equivalent, as well *
* as percentagewise, at the high and medium high elevation areas. Many *
* low elevation snow courses, which are normally bare as of May 1, still *
* have a good snow cover. Precipitation during the month was above nor- *
* mal in the South Eastern and North Central Divisions of the state; *
* normal in the North East; below normal in the Pend Oreille-Spokane, *
* Central, and on the West Slopes of the Cascades. Precipitation in the *
* Columbia Drainage of Canada was very subnormal. Subsequent streamflow *
* during the month was below normal in all instances with the exception *
* of the Palouse River which has a low elevation watershed. Reservoir *
* managers continue to lower reservoir stages in anticipation of the *
* abundant snow melt flows. *

* * * * *

SNOW COVER

All drainage basins in the state of Washington were reported to have above normal snow packs as of May 1. The general range is from 20 to 40 percent greater. A few drainages with only one or two snow courses sometimes give abnormal results due to lack of proper coverage, elevationwise. For example, the snow course at Satus Pass on the Klickitat Drainage indicates the snow cover to be 574 percent greater than average. Another drainage with apparently good elevation coverage is the Wenatchee River, measured by 8 snow courses. The snow pack in this area is 14 percent greater than last year, 551 percent greater than was measured in 1973 and 107 percent greater than average. These figures, again, are the result of a good snow pack that extends down to the lower elevations and does not indicate an excessive high elevation snow pack. Stevens Pass has a snow pack that is 84 percent of last year, 220 percent of 1973 and 124 percent of average. The snow course, Berne Mill Creek, a thousand feet less elevation, has a snow cover that is the same as last year, yet 934 percent greater than was measured in 1973. Comparison of snow cover is generally not made on May 1 because of this high fluctuation of snow packs, elevationwise, but in years such as this, with above normal snow cover, it is indicative of what is up in the hills.

RESERVOIRS

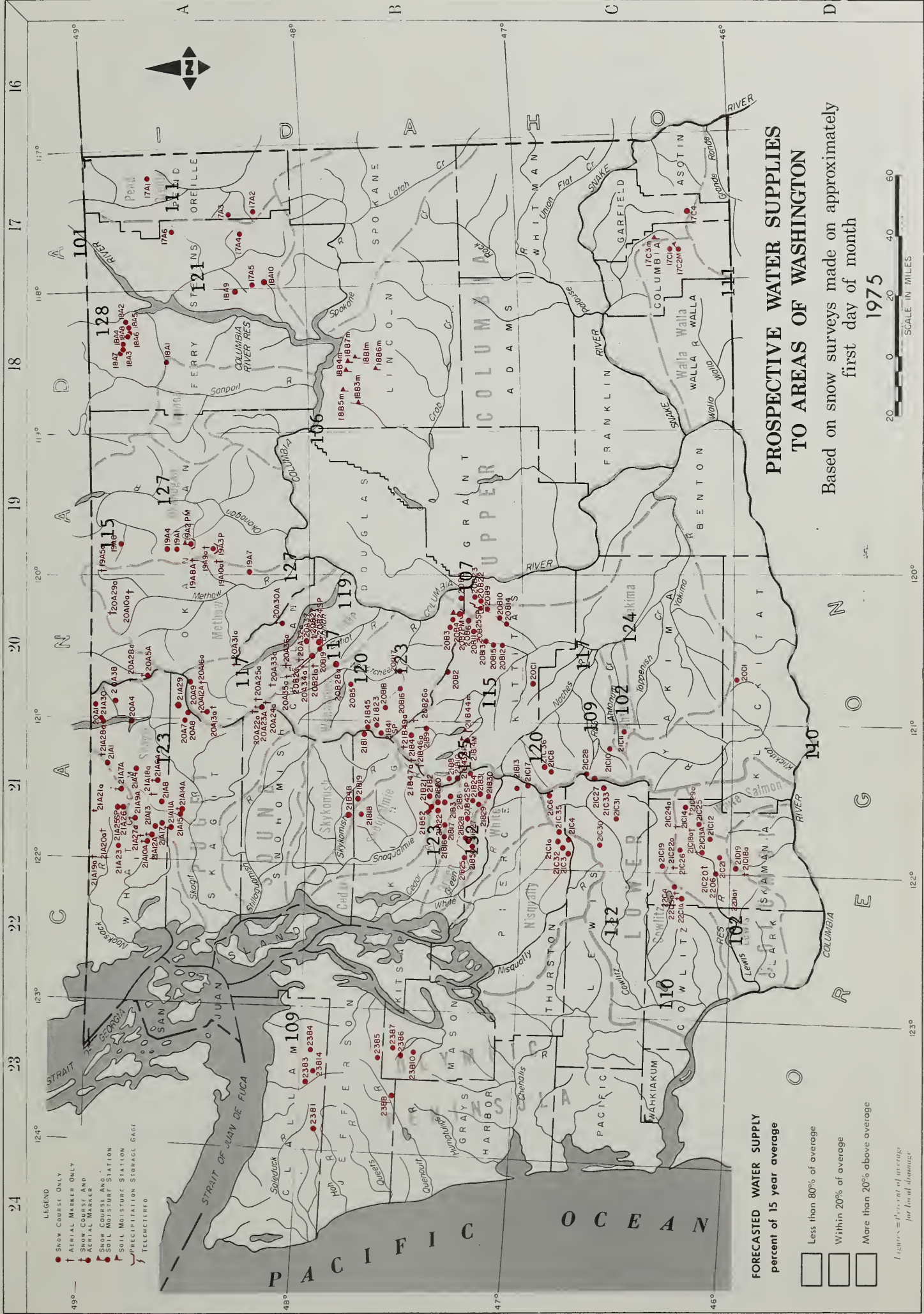
Most irrigation and power reservoirs have less water in storage than normal for this time of year. Exceptions are Banks Lake and Salmon Lake. Most of the reservoirs that were used for power production are exceptionally low, being drawn down during the past "Energy Crunch" to supply the needed power for the northwest. Irrigation reservoirs have also been drawn down, but this, in anticipation of the well above normal spring flows and to assist the flood control agencies in reducing damaging flows along the lower reaches of the rivers.

PRECIPITATION

Winter precipitation, as reported by the National Weather Service, ended up above normal on all drainage divisions in the state and surrounding areas. Spring precipitation starts with April and is reported to be 67 percent below normal for the Columbia in Canada; 16 percent below for the Pend Oreille-Spokane; 38 percent below for central Washington and 37 percent below on the west slopes of the Cascades. North eastern Washington had normal rainfall during the past month and south eastern and north central Washington had rainfall that was 14 and 24 percent above average, respectively.

STREAMFLOW

Flows during the month of April ranged from a low of 39 percent of normal for the Similkameen River, as measured at Nighthawk, to a high of 47 percent above normal for the Palouse. Other low elevation drainages, such as the Klickitat and Walla Walla, had an outflow in the 80 percent of normal bracket. The Okanogan River at Tonasket had an outflow of 88 percent, but this again is a result of the British Columbia Governments attempt to evacuate Okanogan Lake in anticipation of the high inflows. Forecasts of streamflow have all been increased, percentagewise, from that previously reported as a result of the low outflow during April. The May-September forecasts now range from a low of 1 percent above normal for the Columbia River at Birchbank to a high of 32 percent above normal for the Green River below Howard Hansen Dam. The Okanogan River near Tonasket is expected to flow 2,020,000 acre feet during the May-September period. This compares with 2,511,000 acre feet of last year and 3,603,000 for 1972. None of the 1975 runoff forecasts exceeds or comes close to the flows experienced last year or close to the damaging flows which occurred in 1972. Numerical forecasts can be found following this narrative statement.



PROSPECTIVE WATER SUPPLIES TO AREAS OF WASHINGTON

Based on snow surveys made on approximately
first day of month

1975

FORECASTED WATER SUPPLY
percent of 15 year average

- Less than 80% of average
- Within 20% of average
- More than 20% above average

Figures = Percent of average
for local drainage

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

UPPER COLUMBIA DRAINAGE																	LOWER COLUMBIA DRAINAGE																	PUGET SOUND DRAINAGE																	OLYMPIC PENINSULA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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Butte Creek	18A3	28	39N	35E	4070	Scout-A-Vista	2084	18	21N	20E	3100	Plains of Abraham	22C1a	35	8N	5E	4400	Granite Creek	21A29	25	36N	16E	3500																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Cabin Creek	18A5	5	38N	30E	3170							Smith Creek Road	22C2a	29	9N	6E	2100	New Meadows Cabins	20A8	19	40N	14E	1900																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.					
UPPER COLUMBIA DRAINAGE																						
Pend Oreille River																						
Boyer Mountain	17A2	7	31N	43E	5250	Wenatchee River (continued)										Lewis River (continued)						
Bunchgrass Meadow	17A1	24	37N	44E	5000	Trough #2	20B25SP	10	20N	20E	5310	Divide Meadow	21C29a	21	9N	10E	5600					
Winchester Creek	17A3	30	33N	43E	2970	Coloquium Creek	20B22	11	20N	20E	5300	Grand Meadow	21C25	28	BN	9L	3500					
Kettle River																						
Boulder Road	18A2	36	39N	36E	1450	Coloquium Creek Upper	20B22	11	20N	20E	5300	Lone Pine Shelter	21C26	8	9N	7E	3800					
Butte Creek	18A3	28	39N	35E	4070	Coloquium Creek Lower	20B23	1	20N	20E	4300	Marble Mountain	22C5a	24	BN	5E	3200					
Cabin Creek	18A8	5	38N	36E	3170	Squilchuck Creek	20B3	12	21N	19E	4400	New Muddy River	22C6	36	BN	6E	2000					
Cat Creek	18A4	26	39N	35E	3595	Scout-A-Vista	20B4	1B	21N	20E	3400	Oldman Pass	21D19	22	6N	7E	3100					
Snow Caps Creek	18A5	3	38N	36E	2150	Stemilt Creek	20B8	34	21N	20E	4450	Plains of Abraham	22C1a	35	9N	5E	4400					
Snow Caps Trail	18A6	5	38N	36E	2720	Jump-Off	20B6	30	21N	20E	5000	Smith Creek Road	22C2	29	9N	6E	2100					
Summit G. S.	18A7	20	39N	35E	4600	Stemilt Slide	20B7PM	30	21N	20E	5000	Spencer Meadow	21C29a	16	8N	7E	3400					
Colville River																						
Baird	17A6	19	36N	42E	3215	Upper Wheeler	20B7PM	30	21N	20E	4400	Table Mountain	21C24a	14	7N	8E	4250					
Carlson	18A9	34	32N	38E	2885	Crab Creek	18B1m	32	27N	34E	2440	Timbered Peak	21D18a	36	6N	6E	3000					
Chevelah	17A4	11	32N	41E	4925	Creston-Kunz	18B3m	28	27N	31E	2750	Cowlitz River										
Stranger Mountain	17A5	26	31N	38E	4990	Jack Woods	18B3m	28	27N	31E	2750	Cayuse Pass	21C16	15	16N	10E	5300					
Togo	18A10	6	29N	38E	3370	Krause	18B4m	21	27N	32E	2420	Mosquito Meadows	21C19	33	10N	7E	4100					
Sanpoil River																						
Sherman Creek Pass	18A1	19	36N	35E	5350	Sherfells	18B5m	17	27N	32E	2378	Ohanapecosh	21C32	28	15N	10E	2200					
Okanogan River																						
Clark	19A8a	2	36N	23E	7000	Sherman	18B7m	24	27N	33E	2440	Packwood Lake	21C31	21	13N	10E	2870					
Nuckamuck	19A9a	20	36N	24E	6750	Wheatridge	18B6m	24	25N	32E	2290	Pigtail Peak	21C33	11	13N	11E	5900					
Nutton Creek No. 1	19A1	30	37N	24E	5700	Yakima River										Nisqually River						
Nutton Creek No. 2	19A4	19	37N	24E	6000	Ahtanum R. S.	21C11	24	12N	14E	3100	Ghost Forest	21C4	23	15N	BE	4550					
Paysayten	20A28a	32	40N	18E	4300	Big Boulder Creek	21B9	35	23N	14E	3200	Longmire	21C3	29	15N	BE	2760					
Rusty Creek	19A3P	18	35N	24E	4000	Bumping Lake	21C8	23	16N	12E	3450	Paradise Park (New)	21C35	13	15N	BE	5500					
Salmon Meadows	19A2PM	33	37N	24E	4500	Bumping Lake New	21C36	13	16N	12E	3400	Stem Glade	21C1	13	15N	BE	5050					
Starvation Mtn.	19A10a	15	35N	23E	6750	Coloquium Pass	20B9	25	20N	20E	5370	PUGET SOUND DRAINAGE										
Touts Coulee	19A6	30	39N	25E	2845	Cooke Creek	20B10	17	19N	20E	4123	White River										
Methow River																						
Billy Goat Pass	20A10a	10	38N	20E	6400	Domery Flat	21B44m	15	20N	14E	2200	Corral Pass	21B13	30	18N	11E	6000					
Dollar Watch	20A29a	8	39N	20E	7000	Fish Lake	21B4	34	24N	14E	3571	Green River										
Harris Pass	20A5a	7	37N	18E	6500	Green Lake	21C10	3	23N	13E	6000	21B24	18	20N	11E	1800						
Horseshoe Basin	19A5a	15	40N	23E	7000	High Creek	20B12	34	20N	12E	4624	21B25	27	21N	8E	1200						
Loup Loop	19A7	36	34N	23E	4650	Joe Lake	21B46a	22	23N	12E	4624	21B25P	21	21N	9E	3200						
Chelan Lake Basin																						
Cloudy Pass	20A22a	12	31N	15E	6500	Lake Cle Elum	21B44m	15	20N	14E	2200	Cougar Mountain No. 2	21B27	14	20N	8E	2900					
Greenwood Flat	20A25a	3	31N	16E	3540	Lemah Creek	21B47a	7	23N	13E	3327	Grass Mountain No. 3	21B28	12	20N	8E	2100					
Little Meadows	20A24a	8	31N	16E	5275	Manastrash	21C17	6	16N	11E	5400	Lester Creek	21B29	36	20N	10E	3100					
Lyman Lake	20A23a	18	31N	16E	5900	Norse Lake	20B13	4	20N	19E	3875	Lynn Lake	21B50	21	20N	8E	4000					
Park Creek Flat	20A13a	19	34N	16E	2220	Nanum	20B14	20	19N	20E	3360	Sawmill Ridge	21B31	5	19N	11E	4700					
Park Creek Ridge	20A12a	18	34N	16E	4600	Trail Creek	20B14	20	19N	20E	3360	Snowshoe Butte	21B43SP	14	20N	11E	5000					
Petersons	20A16a	3	34N	17E	3730	Tunnel Avenue	21B88	13	21N	11E	2450	Stampede Pass	21B10	25	21N	11E	3860					
Rainy Pass	20A16a	3	34N	17E	3730	Van Epps Pass	20B26a	16	23N	15E	5925	Twin Camp	21B30	18	19N	11E	4100					
Safety Harbor	20A30a	32	31N	20E	6300	Walters Flat	20B15	22	20N	19E	3360	Cedar River										
War Creek Pass	20A31a	34	33N	18E	6500	White Pass (East Side)	21C28	2	13N	11E	4500	21B3	10	21N	10E	2390						
Entiat River																						
Blue Creek G.S.	20B28a	19	28N	18E	5425	White Pass (Leach Lake)	21C27	1	13N	11E	4500	21B21	30	22N	10E	3300						
Brief	20B19	34	28N	19E	1600	LOWER COLUMBIA DRAINAGE										21B22	31	22N	10E	2500		
Entiat Meadows	20A35a	28	31N	17E	4800	Asotin Creek	17C4	9	BN	40E	5700	Mt. Gardner	21B32	31	22N	9E	2500					
Entiat River Trail	20A34a	2	29N	17E	3150	Spruce Springs	17C4	9	BN	40E	5700	Mt. Lindsay	21B16	31	22N	9E	3000					
Four Mile Ridge	20B27a	15	28N	19E	7000	Mall Creek										Mt. Washington New	21B52	8	22N	9E	3000	
Fox Camp	20A36a	1	30N	18E	6510	Couse	17C3m	2	9N	40E	3370	Rex River	21B17	11	21N	9E	2400					
Pope Ridge	20B20	22	29N	18E	4300	Homestead	17C1	11	9N	40E	4030	South Fork Cedar	21B6	24	21N	10E	3000					
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300	Martin Springs (Helmrs SN)	17C2M	23	9N	40E	4400	Tinkham Creek	21B20	1	21N	10E	3400					
Pugh Ridge	20A32a	34	30N	18E	6400	Klickitat River										Snoqualmie River						
Shady Pass	20A37	20	29N	19E	6200	Satus Pass	20D1	21	6N	17E	4030	Alpine Meadow	21B48	31	27N	9E	3500					
Snow Brushy	20A35a	21	30N	17E	3850	White Salmon River										Olallie Meadows	21B2	19	22N	11E	3625	
Tommy Creek	20B21a	10	28N	18E	5300	Cultus Creek	21C12	35	7N	8E	4000	South Fork Tolt	21B18	26	26N	9E	1900					
Wenatchee River																						
Berne-Mill Creek	21B23	7	26N	15E	3170	Lewis River										Skykomish River						
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240	Blue Lake	21C22a	19	9N	BE	4800	Lake Elizabeth	21B19	33	26N	10E	2900					
Blewett Pass No. 2	20B2	35	22N	17E	4270	Bob's Trail	21C21	25	BN	7E	2200	Snoqualmie River										
Chiwaukum G. S.	20B16	4	25N	17E	1810	Council Pass	22D1a	8	5N	5E	2500	21B43	31	27N	9E	3500						
Lake Wenatchee	20B5	33	27N	17E	1970	Snoqualmie River												21B28	31	27N	9E	3500
Leavenworth R. S.	20B17	1	24N	17E	1127	21C22a	19	9N	BE	4800	Skykomish River						21B2	19	22N	11E	3625	
Nerritt	20B18	4	26N	16E	2140	21C21	25	BN	7E	2200	21B18	26	26N	9E	1900	Skykomish River						
Stevens Pass	21B1	14	26N	13E	4070	21C1Ba	24	9N	5E	2500	21B19	33	26N	10E	2900	Skykomish River						
Stevens Pass Sand Shed	21B45	12	26N	19E	3700	21C1Ba	24	9N	5E	2500	Skykomish River						Skykomish River					

LEGEND

NUMBERING SYSTEM EXAMPLE

21A7

SNOW COURSE ONLY

21A7a

SNOW COURSE AND AERIAL MAPPER

21A7b

SNOW COURSE AND SOIL MOISTURE STATION

21A7c

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7d

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7e

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7f

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7g

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7h

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7i

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7j

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7k

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7l

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7m

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7n

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7o

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7p

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7q

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7r

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7s

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7t

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7u

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7v

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7w

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7x

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7y

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7z

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7

SNOW COURSE ONLY

21A7a

SNOW COURSE AND AERIAL MAPPER

21A7b

SNOW COURSE AND SOIL MOISTURE STATION

21A7c

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7d

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7e

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7f

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7g

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7h

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7i

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7j

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7k

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7l

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7m

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

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SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7o

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7p

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7q

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7r

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7s

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7t

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7u

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7v

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7w

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7x

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7y

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

21A7z

SNOW COURSE AND PRECIPITATION STORAGE GAUGE

STREAMFLOW FORECASTS - MAY 1975

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1974 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-yr. Avg.	Fore- cast period	1974	1973	1972	15-yr Average 58-72
<u>COLUMBIA BASIN</u>							
<u>Columbia River System</u>							
Columbia River	43800	101	May-Sep	50321	32773	53667	43514
at Birchbank <u>1/</u>	35000	101	May-Jul	40586	25853	43573	34632
	25100	102	May-Jun	27987	18180	31319	24633
Columbia River	65700	106	May-Sep	75369	41919	78559	61962
at Grand Coulee <u>1/</u>	55100	107	May-Jul	63900	34263	66130	51473
	41900	107	May-Jun	47262	25956	50426	39153
Columbia River	72700	107	May-Sep	86002	44972	89350	67934
bl Rock Island Dam <u>1/</u>	61300	108	May-Jul	37543	37055	76004	56790
	47100	109	May-Jun	54309	27887	57970	43202
Columbia River	101000	110	May-Sep	119784	58016	119815	91599
at The Dalles, Or <u>1/</u>	85300	111	May-Jul	103630	47114	102914	76822
	67300	112	May-Jun	79342	36249	81295	60087
<u>Pend Oreille River System</u>							
Pend Oreille River	15200	111	May-Sep		6929	17909	13737
bl. Box Canyon	13700	110	May-Jul		6338	16336	12471
	11700	111	May-Jun		5507	13725	10561
<u>Kettle River System</u>							
Kettle River	2070	128	May-Sep	2330	992	2068	1614
nr. Laurier	1950	127	May-Jul	2251	964	1984	1534
	1750	127	May-Jun	1975	892	1744	1381

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-yr. Avg.	Fore- cast period	1974	1973	1972	15-Yr Average 58-72
<u>Kettle River System (Cont.)</u>							
Colville River	110	121	May-Sep	164	32	76	91
at Kettle Falls	97	121	May-Jul	147	29	65	80
	85	120	May-Jun	130	27	56	71
<u>Spokane River System *</u>							
Spokane River	2550	125	May-Sep		778	3100	2010
at Post Falls, ID <u>2/</u>	2450	127	May-Jul		720	2973	1926
	2250	125	May-Jun		660	2742	1800
<u>Okanogan River System</u>							
Similkameen River							
nr. Nighthawk	1640	115	May-Sep	2094	688	3118	1425
	1530	115	May-Jul	1970	649	2949	1333
	1300	115	May-Jun	1588	573	2426	1131
Okanogan River	2020	127	May-Sep	2511	704	3603	1587
nr. Tonasket	1850	128	May-Jul	2288	646	3273	1446
	1550	128	May-Jun	1784	561	2646	1213
<u>Methow River System</u>							
Methow River							
nr. Pateros	1200	127	May-Sep		466	1818	946
	1110	126	May-Jul		430	1678	879
	940	126	May-Jun		370	1383	748
<u>Chelan River System</u>							
Chelan River	1360	119	May-Sep	1627	702	1730	1140
at Chelan <u>3/</u>	1200	120	May-Jul	1386	605	1483	999
	940	122	May-Jun	989	469	1114	767
Stehekin River	970	117	May-Sep		490	1167	830
at Stehekin	820	117	May-Jul		396	975	702
	630	120	May-Jun		301	704	526
Entiat	260	117	May-Sep		132	372	223
nr. Ardenvoir	240	118	May-Jul		118	335	204
	195	118	May-Jun		99	257	165

* Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.

2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.

3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1974	1973	1972	15-Yr. Average 58-72
<u>Wenatchee River System</u>							
Wenatchee River	1400	120	May-Sep	1750	689	1764	1165
at Plain	1260	121	May-Jul	1492	608	1523	1040
	985	122	May-Jun	1028	488	1109	809
Wenatchee River	1950	123	May-Sep	2333	903	2538	1583
at Peshastin	1735	122	May-Jul	2008	808	2216	1426
	1380	123	May-Jun	1409	656	1634	1121
Stemilt Basin nr. Wenatchee	160*	116	May-Sep			145*	138*
<u>Yakima River System</u>							
Yakima River	145	125	May-Sep	204	63	196	116
nr. Martin <u>4/</u>	130	125	May-Jul	187	55	174	104
	110	124	May-Jun	143	50	143	89
Yakima River	910	115	May-Sep		441	1328	794
at Cle Elum <u>5/</u>	830	118	May-Jul		376	1188	706
	700	118	May-Jun		319	969	593
Yakima River	1650	124	May-Sep		415	2732	1328
nr. Parker <u>6/</u>	1600	123	May-Jul		423	2572	1298
	1450	123	May-Jun		432	2195	1178
Kachess River	125	125	May-Sep	179	50	174	100
nr. Easton <u>7/</u>	115	124	May-Jul	165	46	161	93
	100	123	May-Jun	128	43	132	81
Cle Elum River	490	120	May-Sep	676	237	679	410
nr. Roslyn <u>8/</u>	450	121	May-Jul	595	207	603	371
	370	121	May-Jun	431	172	469	306

* Thousands of Miners' inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		%	Fore-	15-Yr.			
		15-Yr. Avg.	cast period	1974	1973	1972	15-Yr. Average 58-72
<u>Yakima River System (Cont.)</u>							
Bumping River	155	120	May-Sep	213	63	211	129
nr. Nile <u>9/</u>	145	122	May-Jul	130	57	186	118
	120	125	May-Jun	135	51	138	96
American River	125	112	May-Sep		59	168	112
nr. Nile	115	112	May-Jul		54	151	103
	95	112	May-Jun		47	119	85
Tieton River	235	109	May-Sep	362	140	369	214
at Tieton Dam <u>10/</u>	200	112	May-Jul	294	104	304	178
	155	112	May-Jun	212	78	229	139
Naches River	875	117	May-Sep		366	1313	748
nr. Naches <u>11/</u>	800	120	May-Jul		309	1175	669
	670	120	May-Jun		260	942	557
Ahtanum Creek	40	102	May-Sep		16	65	39
nr. Tampico <u>12/</u>	37	106	May-Jul		14	59	35
	32	106	May-Jun		12	49	30
<u>Lower Columbia River System</u>							
Mill Creek	20	111	May-Sep		13	24	18
nr. Walla Walla	16	114	May-Jul		9	19	14
	13	108	May-Jun		6	15	12
Lewis River	950	102	May-Sep	1409	591	1199	933
at Ariel <u>13/</u>	800	105	May-Jul	1222	456	993	765
	650	101	May-Jun	958	365	837	642
Cowlitz River	1850	112	May-Sep		1006	2526	1650
Blw. Mayfield Dam	1600	115	May-Jul		822	2149	1391
	1250	111	May-Jun		658	1679	1123
Cowlitz River	2300	110	May-Sep	3410	1322	3036	2093
at Castle Rock <u>14/</u>	1950	112	May-Jul	2964	1064	2548	1741
	1550	110	May-Jun	2272	857	1999	1407

9/ Observed flow corrected for storage in Bumping Lake.

10/ Observed flow corrected for storage in Rimrock Lake.

11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapator Canals and City of Yakima.

12/ Observed flow of North and South Forks (Combined).

13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.

14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1975	Seasonal Streamflow in Thousands of Acre-Feet					
		%	Fore-				
		15-Yr. Avg.	cast period	1974	1973	1972	15-Yr. Average 58-72

OLYMPIC PENINSULA

Dungeness River System

Dungeness River	160	109	May-Sep		109	183	147
nr. Sequim	130	109	May-Jul		86	146	119
	95	112	May-Jun		62	102	85

PUGET SOUND

Skagit River System

Skagit River	2500	123	May-Aug		1381	3162	2037
at Newhalem <u>15/</u>							

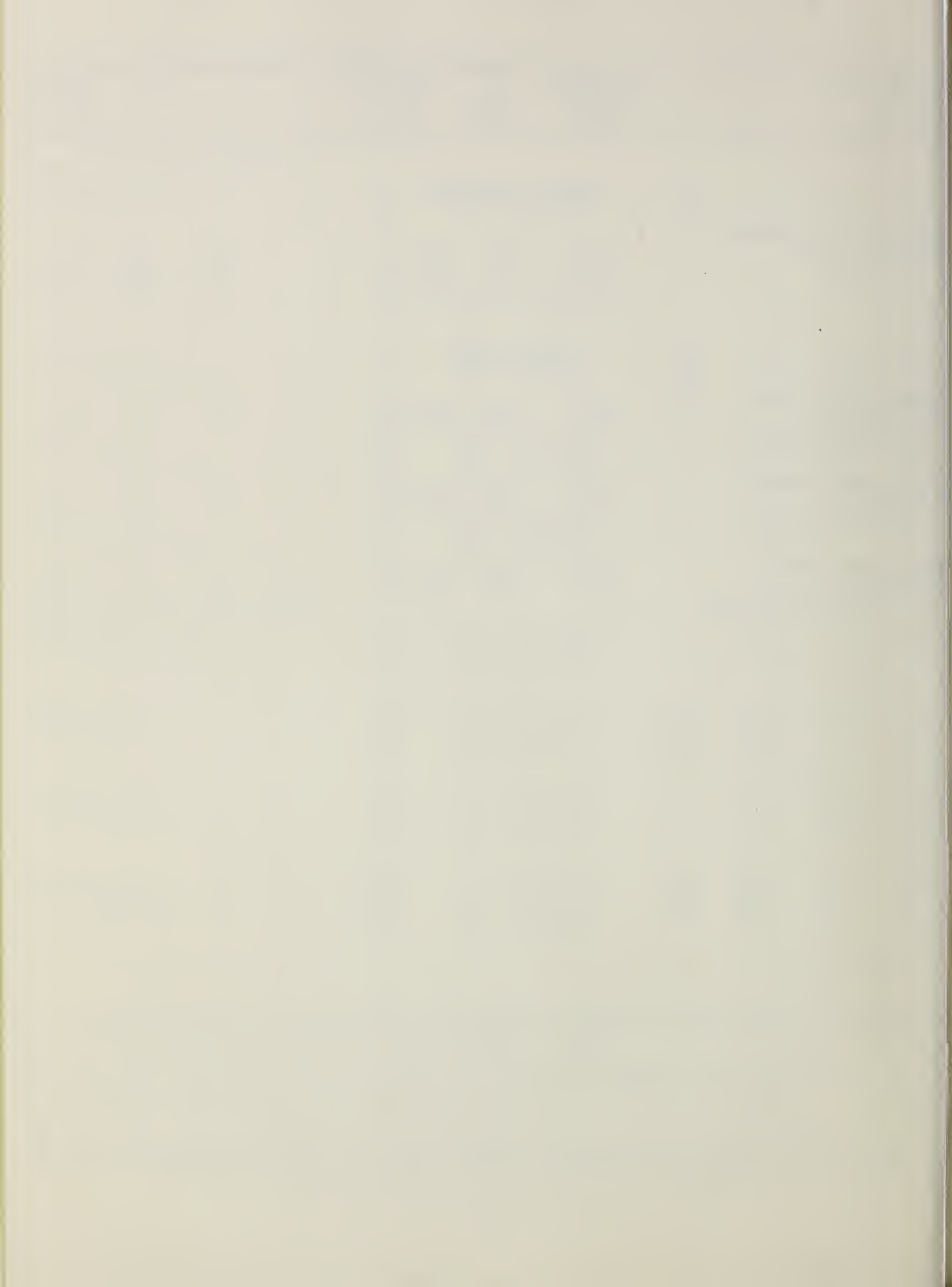
Cedar River System

Cedar River	112	123	Apr-Sep		53	122	91
at Cedar Falls							

Green River System

Green River	290	132	May-Sep	373	120	342	220
bl. Howard Hansen Dam							

15/ Observed flow corrected for storage in Diablo, Ross, and Gorge Reservoirs.



COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about May 1, 1975 as percent of the same date in 1974 and 1973 and average of record

Average of Record	No. of Courses Average	1975 Snow Water Expressed As Percent Of	1974	1973	1958-72 Avg.
Tributary Basin					
<u>UPPER COLUMBIA BASIN</u>					
Pend Oreille	11		96	260	144
Kettle	10		95	194	147
Spokane	8		85	208	109
Okanogan	30		83	201	139
Methow	7		72	190	134
Chelan	1		82	151	112
Entiat	10		72	213	123
Wenatchee	8		114	651	207
Yakima	14		82	354	141
<u>LOWER COLUMBIA</u>					
Klickitat	1		164	-	674
White Salmon	2		64	278	108
Lewis	16		69	241	127
Cowlitz	6		74	277	120
<u>PUGET SOUND</u>					
Nisqually	4		74	222	-
White	2		76	208	135
Green	3		94	214	126
Snoqualmie	1		72	365	137
Skykomish	2		83	309	124
Skagit	12		90	221	163
Baker	10		77	175	126
Nooksack	1		57	146	-
<u>OLYMPIC PENINSULA</u>					
Skokomish	3		71	144	-
Elwha	1		90	204	104

RESERVOIR STORAGE - 1000 Acre Feet

BASIN OR STREAM	RESERVOIR	USABLE <u>1/</u> CAPACITY	1975	Measured (May)		Normal*
				1974	1973	
<u>COLUMBIA</u>						
Spokane	Coeur d'Alene Lake	225.1	95.5	263.5	83.9	174.1
Columbia	Franklin D. Roosevelt Lake	5232.0	312.1	-1948.0	-42.5	1654.6
Columbia	Banks Lake	761.8	550.7	548.2	319.0	457.7
Okanogan	Conconully Reservoir	13.0	11.0	10.1	11.2	11.2
Okanogan	Salmon Lake	10.5	9.5	9.9	9.9	7.8
Chelan	Lake Chelan	676.1	79.0	188.5	195.2	225.1
<u>YAKIMA</u>						
Yakima	Keechelus Lake	157.8	99.5	116.5	127.0	121.2
Kachess	Kachess Lake	239.0	176.5	149.8	188.4	199.2
Cle Elum	Lake Cle Elum	436.9	276.6	249.7	319.0	310.9
Bumping	Bumping Lake	33.7	3.0	8.4	16.8	16.1
Teitton Rimrock Lake		198.0	134.8	144.3	131.5	146.9
<u>PUGET SOUND</u>						
Skagit	Ross Reservoir	1202.0	385.9	700.2	722.2	751.2
Skagit	Diablo Reservoir	90.6	86.9	85.7	88.4	85.7
Skagit	Gorge Reservoir	9.8	7.9	7.9	8.4	-

1/ Based on Active Storage

* 15-year Average 1958-72

SOIL MOISTURE - MAY

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of May 1		
					1975	1974	1973
<u>OKANOGAN</u>							
Salmon Meadows	19A2M	4500	48	5.4	3.8	3.8	3.7
Trout Creek	3-M	3600	48	7.3	-	5.6	4.3
<u>YAKIMA</u>							
Domery Flat	21B20m	2200	48	6.9	-	4.8	4.8
Lake Cle Elum	21B14M	2200	48	12.8	-	9.1	9.1
<u>WALLA WALLA</u>							
Couse	17C3m	3650	48	11.1	-	-	7.4
Helmers	17C2M	4400	48	12.0	-	-	9.9
<u>WENATCHEE</u>							
Upper Wheeler	20B7M	4400	48	12.7	12.4	13.0	9.2

FALL SOIL MOISTURE

Drainage Basin and Station	Number	Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of Oct. 1		
					1974	1973	1972
<u>OKANOGAN</u>							
Salmon Meadows	19A02M	4500	48	5.4	1.8	2.6	2.8
Trout Creek	3-M	3600	48	7.3	3.0	2.8	3.3
<u>YAKIMA</u>							
Domery Flat	21B20m	2200	48	6.9	-	2.6	4.1
Lake Cle Elum	21B14M	2200	48	12.8	-	6.1	8.7
<u>WALLA WALLA</u>							
Couse	17C3m	3650	48	11.1	-	5.6	6.0
Helmers	17C2M	4400	48	12.0	-	7.6	7.7
<u>WENATCHEE</u>							
Upper Wheeler	20B7M	4400	48	12.7	5.4	6.0	5.8

PRECIPITATION 1/

Division Averages and Departures

Drainage Divisions	FALL		SPRING	
	Sept-Oct Observed	1974 <u>2/</u> Departure	Nov. 1974--Mar. 1975 Observed Departure	April - 1975 Observed Departure
Columbia in Canada	1.22	-3.25	13.42 +0.67	0.49 -0.97
Pend Oreille - Spokane	0.71	-3.77	21.69 +2.99	1.93 -0.37
Northeastern Washington	0.30	-2.48	14.78 +3.67	1.44 -0.01
Southeastern Washington	0.31	-2.92	15.27 +1.80	2.32 +0.29
Central Washington	1.21	-3.54	31.75 +4.22	1.36 -0.83
North Central Washington	0.37	-1.25	7.93 +1.21	1.10 +0.21
Northwest Slope Cascades	3.25	-9.44	59.41 +7.18	4.15 -2.22
Southwest Slope Cascades	2.49	-6.19	44.71 +3.07	2.76 -1.86
Northeastern Washington		- Lower Spokane, Colville, Sanpoil and Lower Kettle Drainages.		
Southeastern Washington		- Touchet, Tucannon and Palouse Drainages.		
Central Washington		- Yakima, Wenatchee and Chelan Drainages.		
North Central Washington		- Methow and Okanogan Drainages.		
Northwest Slope Cascades		- Puget Sound Drainages.		
Southwest Slope Cascades		- Lower Columbia Drainages.		

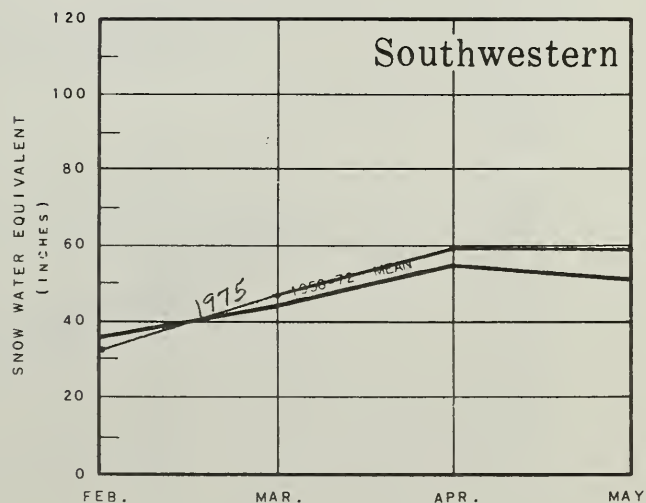
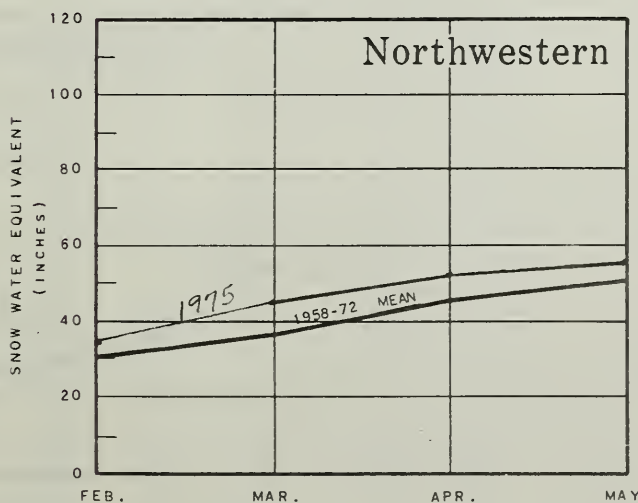
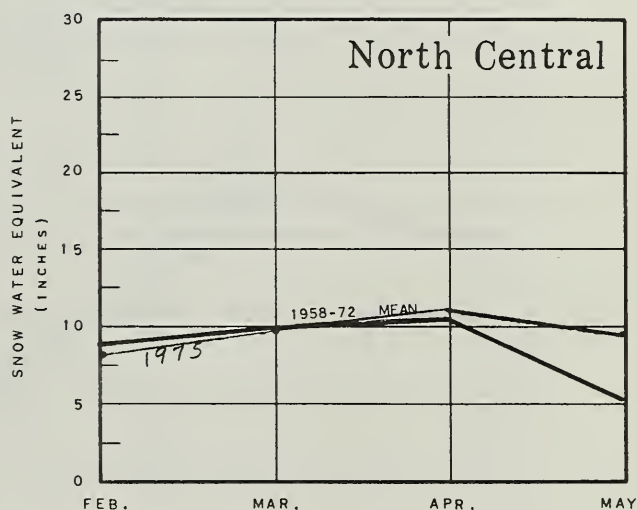
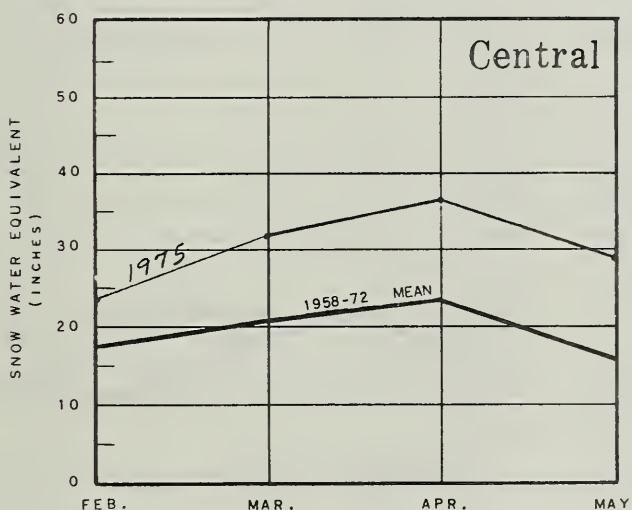
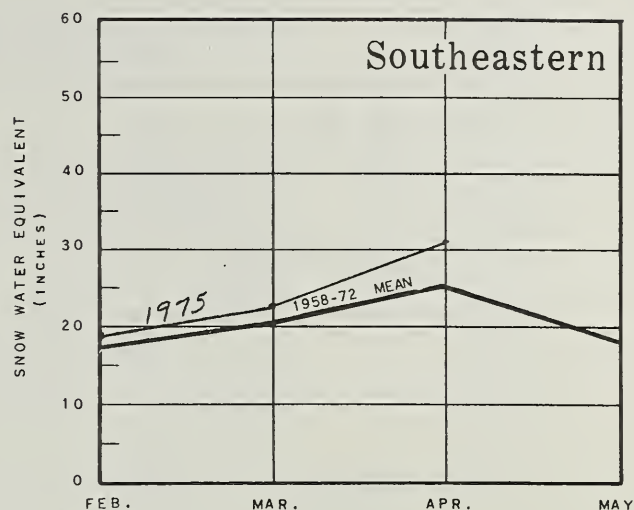
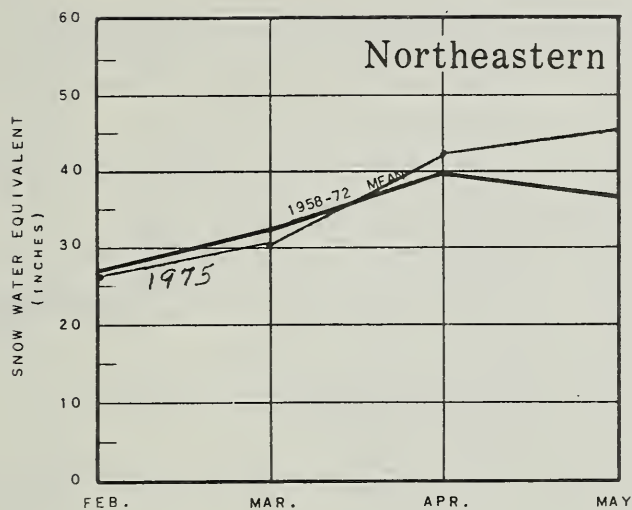
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorological Services of Canada and the National Weather Service.

2/ - Departure from 15-year (1958-72) drainage division average.

WASHINGTON SNOW COVER

1975

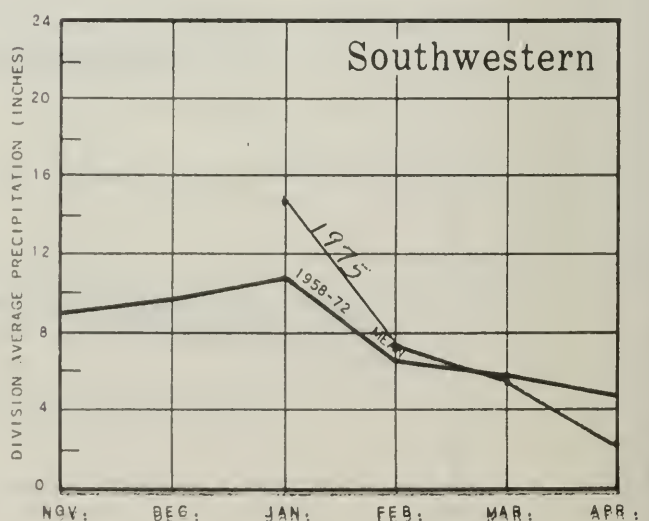
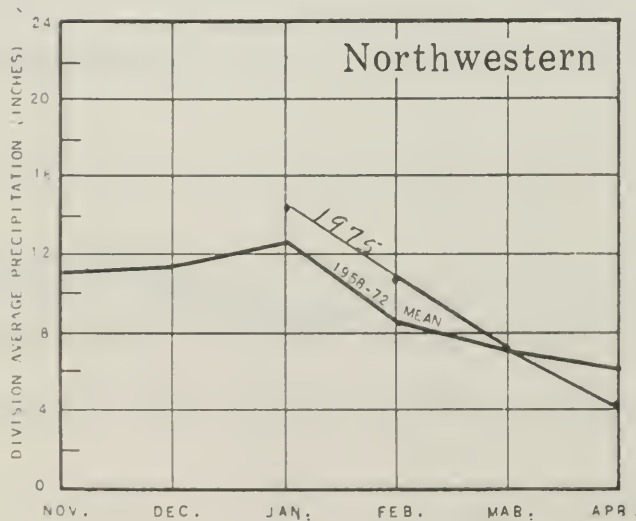
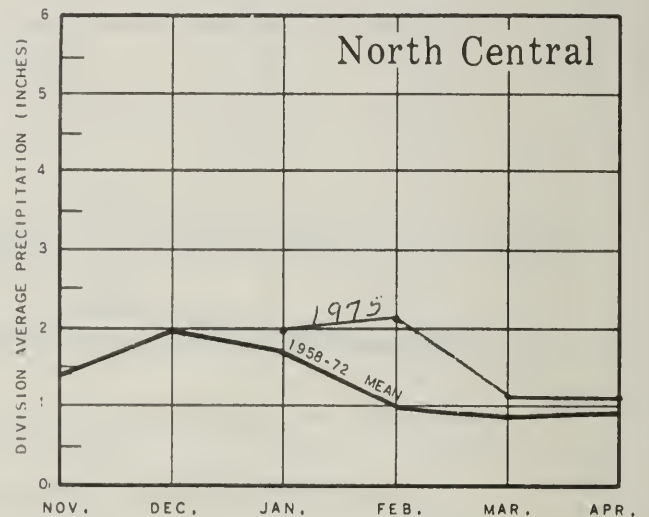
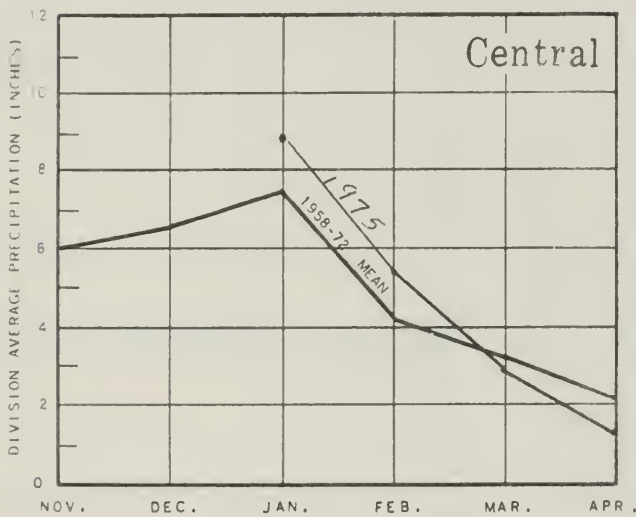
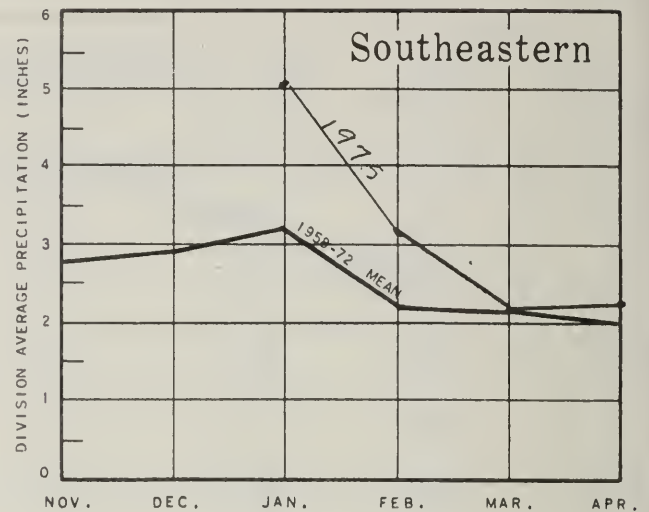
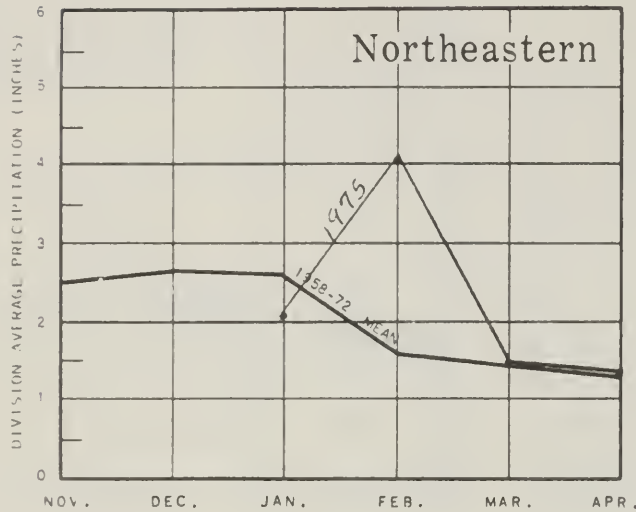
DRAINAGE AREAS



WASHINGTON VALLEY PRECIPITATION

1975

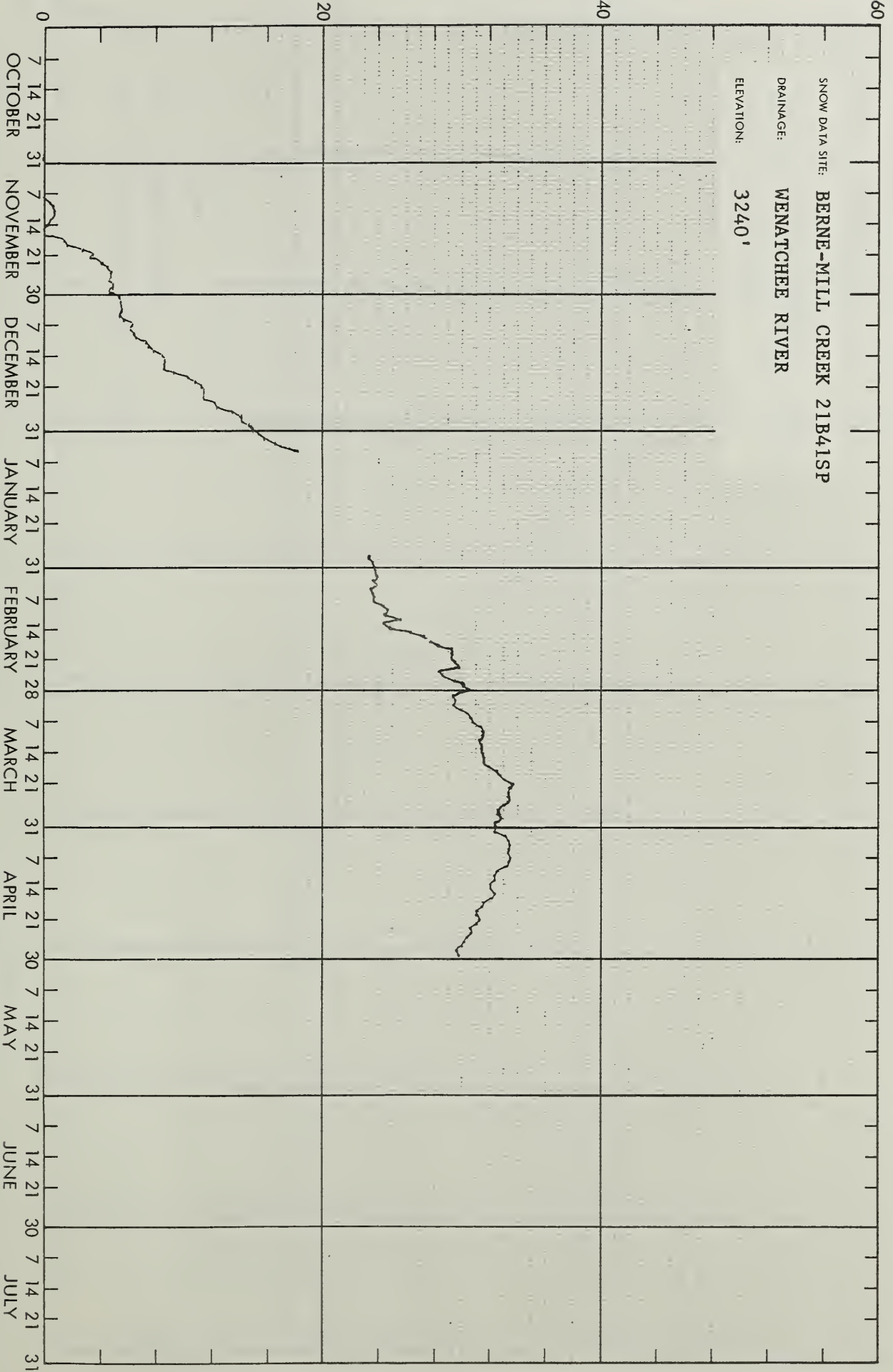
DRAINAGE AREAS



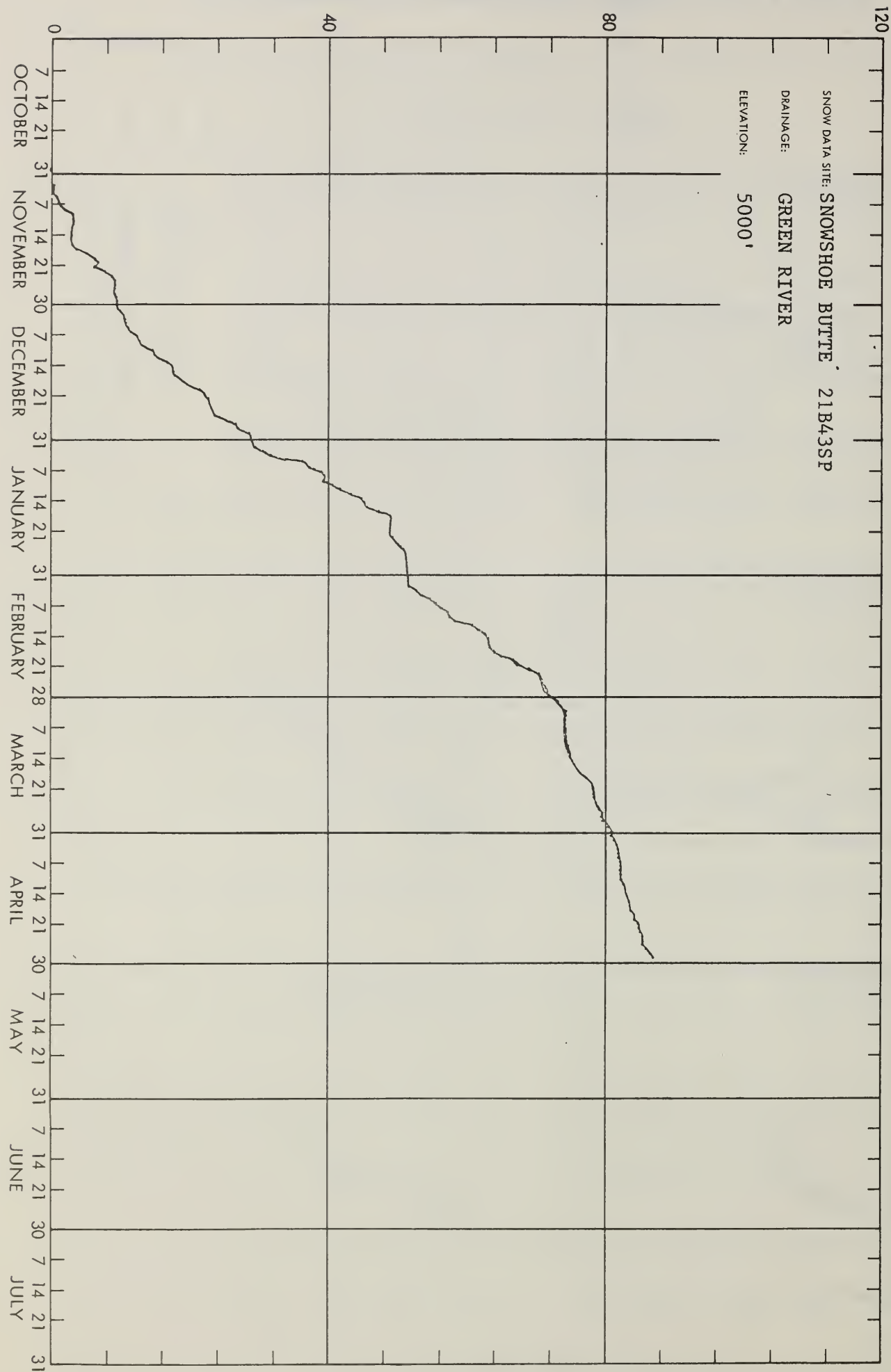
Preliminary Analysis by National Weather Service

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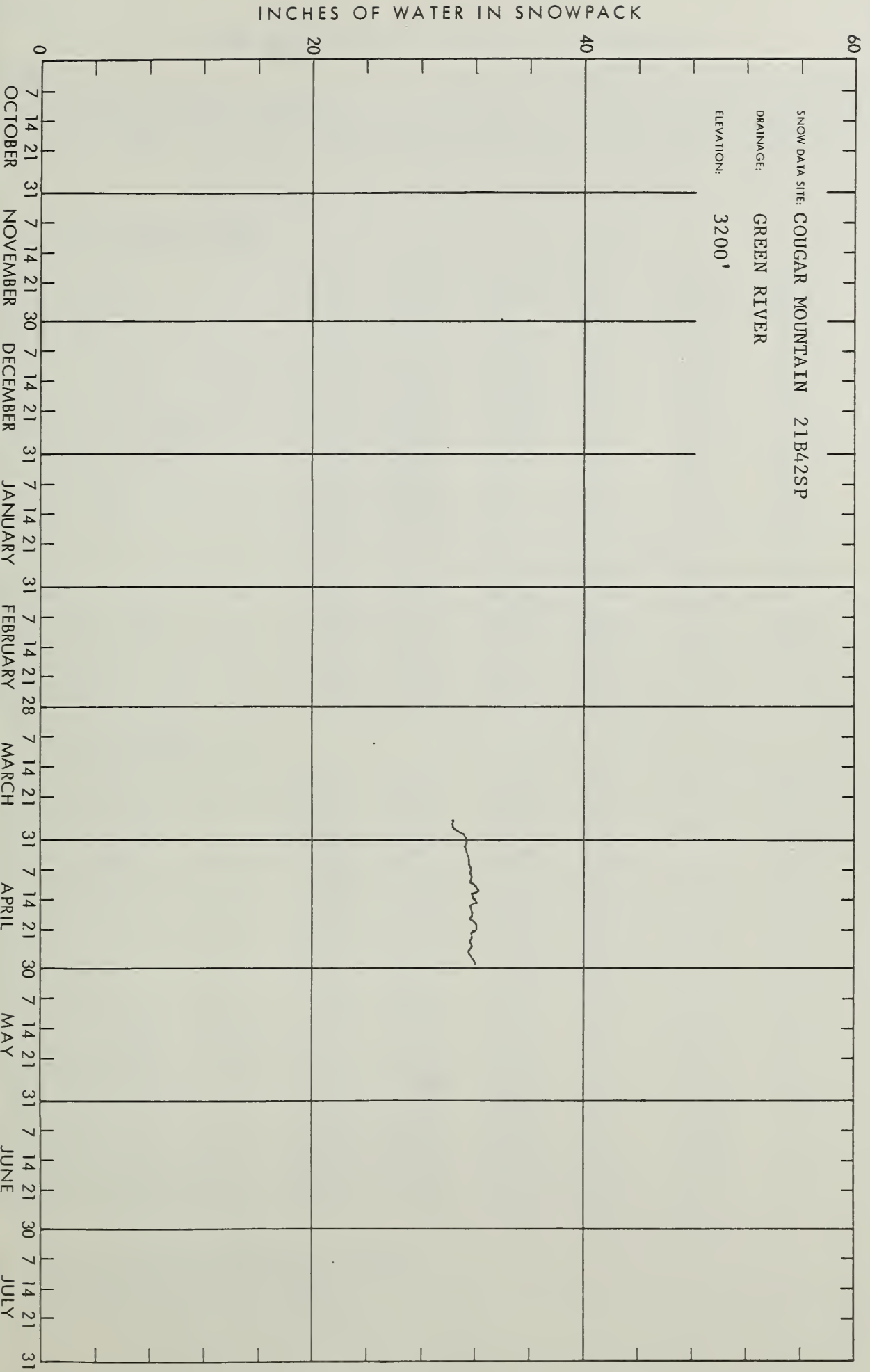
INCHES OF WATER IN SNOWPACK

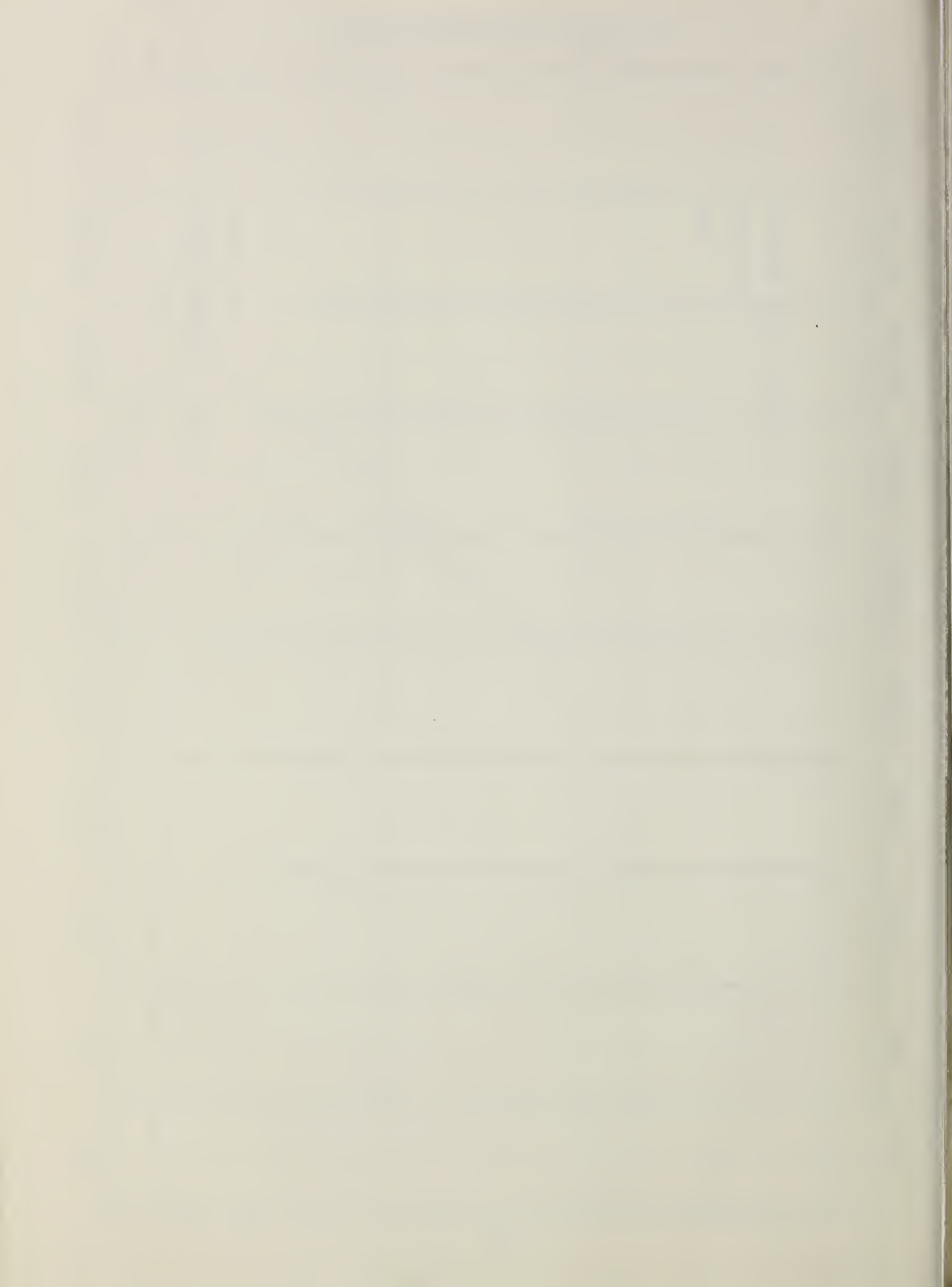


INCHES OF WATER IN SNOWPACK



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SNOW DATA TO MAY 1, 1975 - APPENDIX 1

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#] / _#

U P P E R C O L U M B I A D R A I N A G EPEND OREILLE RIVER

Baree Creek	15B11	5500	4/29	130	61.4	74.3	49.6
Baree Midway	15B16	4600	4/29	105	47.8	50.9	35.1
Baree Trail	15B15	3800	4/30	24	10.3	1.6	1.2
Benton Meadow	16A02	2344	4/30	0	0.0	0.0	0.0
Benton Spring	16A03	4900	4/30	60	25.0	27.0	15.7
Boyer Mountain	17A02	5250	4/28	84	36.0	40.3	26.1
Brush Creek Timber	14A13	5000	4/29	32	11.9	9.6	8.2
Bunchgrass Meadow	17A01	5000	4/29	86	38.8	48.0	30.4
Heart Lake Trail	14C10	4800	5/2	69	30.2	26.4	19.0
Hoodoo Basin	15C10	6000	5/2	137	60.8	75.2	55.2
Hoodoo Creek	15C01	5900	5/2	128	57.6	72.2	52.2
Lookout	15B02	5250	4/15	Not Measured		56.8	-
			4/25	106	45.6	48.0	37.7
Nelson	19-Can	3050	4/28	37	15.6	11.7	7.0*
Schweitzer Bowl	16A06	4500	4/29	94	41.9	42.2	26.6
Schweitzer Ridge	16A05	6100	4/29	155	70.2	70.5	50.6
Smith Creek	16A01	4800	5/1	121	57.3	75.6	47.9
Winchester Creek	17A03	2970	4/28	23	9.5	0.0	1.6

KETTLE RIVER

Barnes Creek	90-Can	5300	4/30	54	21.8	26.9	21.3*
Big White Mtn.	154-Can	5500	4/28	67	27.4	30.0	21.3*
Bluejoint Mtn.	244-Can	7500	4/26	99	39.4	46.7	New
Boulder Road	18A02	1450	4/28	0	0.0	0.0	0.0
Butte Creek	18A03	4070	4/28	29	10.9	10.1	5.9
Cabin Creek	18A08	3170	4/28	14	5.1	1.5	1.5
Carmi	126-Can	4100	4/28	16	5.1	2.5	1.9*
Farron # 1	17-Can	4000	4/29	36	13.6	16.0	8.2*
Farron # 2	243-Can	4000	4/29	36	14.4	16.0	New
Goat Creek	18A04	3595	4/28	0	0.0	0.0	0.0
Graystoke Lake	5-Can	5950	4/25	64	22.0	29.3	26.9*
Monashee Pass	48A-Can	4500	4/30	35	13.2	15.5	13.4*
Old Glory Mtn.	42-Can	7000	4/29	98	40.7	48.0	30.8*
Snow Caps Creek	18A05	2150	4/28	0	0.0	0.0	0.0
Snow Caps Trail	18A06	2720	4/28	0	0.0	0.0	0.0
Summit G. S.	18A07	4600	4/28	32	10.8	8.5	6.0
Trapping Creek Lower	166-Can	3050	4/28	0	0.0	0.0	0.0*
Trapping Creek Upper	165-Can	4450	4/28	30	12.4	9.9	6.1*

Average based on 1958-72 average

* Average for years of record

SNOW DATA TO MAY 1, 1975 - APPENDIX 2

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

SPOKANE RIVER

Above Burke	15B08	4100	4/25	76	33.6	28.8	-
Copper Ridge	16B02	4800	4/29	76	31.0	37.5	27.3
Forty-nine Meadows	15B03	5000	4/30	81	31.0	34.5	30.3
Fourth of July Summit	16B03	3100	4/25	14	5.5	0.0	-
Granite Peak	15B13A	6000	4/30	133	46.2	60.4	48.3
Lookout	15B02	5250	4/15	Not Measured		56.8	-
			4/25	106	45.6	48.0	37.7
Lost Lake	15B14A	6000	4/30	155	59.6	104.0	62.0
Lower Sands Creek	16B01	3400	4/29	54	23.0	27.1	16.0
Medicine Ridge	15B04A	6150	4/30	130	47.4	59.8	51.5
Mosquito Ridge	16A04A	5110	5/1	106	46.0	-	-

OKANOGAN RIVER

Aberdeen Lake	6-Can	4300	5/1	16	5.5	2.0	1.7*
Blackwall Mountain	100-Can	6250	4/28	91	38.2	52.8	38.8*
Brenda Mine	193-Can	4800	4/28	34	14.0	15.5	10.8*
Brookmere	27-Can	3200	4/29	29	10.3	5.6	5.9*
Carrs Landing Upper	168-Can	3200	4/28	0	0.0	0.0	0.0*
Enderby	130-Can	6250	4/30	114	40.7	54.1	43.1*
Esperon Creek Lower	164-Can	4400	4/26	37	15.0	14.8	11.0*
Esperon Creek Middle	163-Can	4700	4/26	46	20.4	20.2	13.9*
Esperon Creek Upper	162-Can	5400	4/26	61	24.7	31.7	20.4*
Freezeout Meadows New	20A38	5000	4/28	102	44.0	79.2	-
Graystoke Lake	5-Can	5950	4/25	64	22.0	29.3	26.9*
Hamilton Hill	107-Can	4900	4/28	43	15.7	15.6	13.4*
Harts Pass	20A05A	6500	4/28	127	53.9	72.9	50.7
Isintok Lake	152-Can	5510	4/26	32	10.8	13.0	7.3*
Lost Horse Mountain	105-Can	6300	4/29	40	13.4	17.9	10.7*
Loup Loup	19A07	4650	4/28	24	9.0	9.2	-
McCulloch	4-Can	4200	4/27	19	6.2	3.8	2.8*
Missezula Mountain	106-Can	5100	4/27	33	11.3	12.7	4.5*
Mission Creek	5A-Can	6000	4/25	73	26.2	31.4	21.7*
Monashee Pass	48A-Can	4500	4/30	35	13.2	15.5	13.4*
Mount Kobau	156-Can	5950	5/1	45	15.7	23.5	13.7*
Mutton Creek No. 1	19A01	5700	4/29	41	16.1	28.3	10.9
Mutton Creek No. 2	19A04	6000	4/29	47	17.3	29.1	15.5
Mutton Creek No. 2 SP	19A11SP	6000	4/29	-	14.8	25.4	-
New Copper Mountain	46A-Can	4300	4/26	9	2.1	0.0	3.7*
New Penticton Res. # 2	183-Can	5225	4/30	39	10.5	12.5	- *
Nickel Plate Mtn.	47-Can	6200	4/29	34	11.6	13.7	7.9*
Oyama Lake	203-Can	4400	4/29	22	6.8	-	4.2*

Average based on 1958-72 average

* Average for years of record

SNOW DATA TO MAY 1, 1975 - APPENDIX 3

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

OKANOGAN RIVER (Cont.)

Postill Lake	55-Can	4500	4/30	25	10.2	9.6	6.8*
Quartette Lake	34-Can	4000	4/26	36	9.9	13.8	-
Rusty Creek	19A03	4000	4/30	11	4.3	5.0	0.6
Salmon Meadows	19A02	4500	4/29	24	9.3	13.1	5.4
Silver Star Mountain	99-Can	6050	4/28	84	36.7	44.7	27.4*
Summerland Reservoir	3A-Can	4200	4/27	33	12.9	10.0	6.7*
Trout Creek	3-Can	4700	4/29	30	10.7	8.6	5.2*
Vaseux Creek	233-Can	4600	4/26	18	5.4	2.8	2.9*
White Rocks Mountain	70-Can	6000	4/29	74	35.4	39.9	28.3*

ENTIAT RIVER

Blue Creek G. S.	20B28a	5425	4/28	102	44.9	60.7	New
Brief	20B19	1600	4/27	0	0.0	0.0	0.0
Entiat Meadows +	20A33a	4800	4/28	104	45.8	69.9	41.0
Entiat River Trail +	20A34a	3150	4/28	24	10.1	15.8	9.7
Four Mile Ridge +	20B27a	7000	4/28	100	44.0	55.5	-
Fox Camp +	20A36a	6510	4/28	146	64.2	93.5	63.5
Pope Ridge	20B20	4300	4/28	44	18.5	20.0	8.2
Pugh Ridge +	20A32a	6400	4/28	95	41.8	61.2	38.7
Shady Pass	20A37	5000	4/28	83	36.1	46.6	-
Snow Brushy +	20A35a	3850	4/28	81	34.0	49.9	30.8
Tommy Creek +	20B21a	5300	4/28	51	22.4	36.0	22.5

METHOW RIVER

Harts Pass	20A05A	6500	4/28	127	53.9	72.9	50.7
Loup Loup	19A07	4650	4/28	24	9.0	9.2	-
Mutton Creek No. 1	19A01	5700	4/29	41	16.1	28.3	10.9
Mutton Creek No. 2	19A04	6000	4/29	47	17.3	29.1	15.6
Mutton Creek No. 2 SP	19A11SP	6000	4/29	-	14.8	25.4	-
Rusty Creek	19A03	4000	4/30	11	4.3	5.0	0.6
Salmon Meadows	19A02	4500	4/29	24	9.3	13.1	5.4

CHELAN LAKE BASIN

Rainy Pass	20A09	4780	4/27	110	49.8	60.6	44.3
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WENATCHEE RIVER

Berne-Mill Creek	21B23	2925	4/29	76	39.3	39.8	21.1
Berne-Mill Creek New SP	21B41SP	3240	4/29	62	31.4	31.6	17.7
Blewett Pass No. 2	20B02	4270	4/14	46	20.2	23.8	13.0
			4/24	43	19.5	17.5	9.5

average based on 1958-72 average

* average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO MAY 1, 1975 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #
<u>WENATCHEE RIVER (Cont.)</u>							
Chiwaukum G. S.	20B16	1810	4/29	0	0.0	0.0	1.8
Fish Lake	21B04	3371	4/28	80	37.0	47.9	26.7
Lake Wenatchee	20B05	1970	4/29	12	5.4	3.1	1.6
Leavenworth R. S.	20B17	1127	4/25	0	0.0	-	0.0
Merritt	20B18	2140	4/29	35	15.6	8.3	3.8
Stevens Pass	21B01	4070	4/15	150	67.6	83.2	55.2
			4/29	146	69.2	82.6	55.8
Stevens Pass Sand Shed	21B45	3700	4/15	105	48.9	63.4	-
			4/29	101	48.7	59.6	-

SQUILCHUCK CREEK

Beehive Springs	20B03	4400	4/30	14	5.4	3.9	1.7
Scout-A-Vista	20B04	3400	4/30	1.2	0.5	0.0	0.4

STEMILT CREEK

Jump-Off	20B08	4450	4/28	21	8.2	4.6	2.8
Stemilt Slide	20B06	5000	4/28	33	14.7	14.9	7.1
Upper Wheeler	20B07	4400	4/28	16	7.3	0.0	1.0

COLOCKUM CREEK

Colockum Creek Upper	20B22	5300	4/28	38	17.5	15.3	-
Colockum Creek Lower	20B23	4300	4/28	19	8.5	3.0	-

YAKIMA RIVER

Big Boulder Creek	21B09	3200	4/28	47	20.9	28.1	7.4
Blewett Pass No. 2	20B02	4270	4/14	46	20.2	23.8	13.0
			4/24	43	19.5	17.5	9.5
Bumping Lake	21C08	3450	4/14	51	20.4	28.2	13.4
			4/30	39	14.8	19.9	9.4
Bumping Lake New	21C36	3400	4/14	66	26.4	34.2	-
			4/30	49	21.5	26.6	15.0
Cayuse Pass	21C06	5300	4/29	234	105.4	138.1	-
Corral Pass	21C13	6000	4/29	136	58.4	-	-
Fish Lake	21B04	3371	4/28	80	37.0	47.9	26.7
Joe Lake +	21B46a	4624	4/29	216	99.4	-	-
Lake Cle Elum	21B14M	2200	4/15	19	8.0	0.0	-
			4/30	0	0.0	0.0	0.0

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO MAY 1, 1975 - APPENDIX 5

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [#]

YAKIMA RIVER (Cont.)

Lemah Creek +	21B47a	3327	4/29	100	46.0	65.0	-
Morse Lake	21C17	5400	4/29	162	88.1	-	65.1
Olallie Meadows	21B02	3625	4/15	138	64.8	91.3	48.4
			4/29	145	66.5	91.8	48.6
Satus Pass	20D01	4030	4/29	29	12.8	7.8	1.9
Stampede Pass SP	21B10	3860	4/15	-	53.8	65.7	43.4
			5/1	-	55.0	62.1	43.4
Tunnel Avenue	21B08	2450	4/14	79	33.0	34.3	20.1
			4/30	65	29.0	27.0	16.0
Van Epps Pass +	20B26a	5925	4/29	137	63.0	75.0	-
Waptus Lake +	21B49a	3024	4/29	91	41.9	50.0	-
White Pass (E. Side)	21C28	4500	4/15	89	34.0	45.4	26.0
			5/1	82	33.6	45.3	25.9
White Pass (L. Lake)	21C27	4500	4/29	90	39.3	49.5	28.6

LOWER COLUMBIA DRAINAGEASOTIN CREEK

Spruce Springs	17C04	5700	4/30	78	33.3	43.7	25.8
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MILL CREEK

Tollgate	18D3M	5070	5/1	Not Measured		52.9	18.9
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KLICKITAT RIVER

Satus Pass	20D01	4030	4/29	29	12.8	7.8	1.9
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WHITE SALMON RIVER

Cultus Creek	21C12	4000	4/28	122	51.3	79.7	48.9
Surprise Lakes	21C13A	4250	4/28	136	59.7	92.5	52.9

WIND RIVER

Old Man Pass	21D19	3100	4/28	44	18.6	27.0	12.6
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Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO MAY 1, 1975 - APPENDIX 6

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

LEWIS RIVER

Blue Lake +	21C22a	4800	4/28	244	104.9	146.0	92.4
Bob-s Trail	21C21	2200	4/26	29	12.1	18.0	7.8
Calamity Ridge +	22D01a	2500	4/28	8	3.5	0.0	1.3
Council Pass +	21C18a	4200	4/28	116	51.0	68.0	38.8
Cultus Creek	21C12	4000	4/28	122	51.3	79.7	48.9
Divide Meadow +	21C29a	5600	4/28	164	70.5	96.0	65.5
Grand Meadow	21C25	3500	4/26	67	30.6	40.2	22.4
Lone Pine Shelter	21C26	3800	4/29	119	48.9	81.0	46.3
Marble Mountain +	22C05a	3200	4/28	74	35.5	72.6	33.2
Mosquito Meadows	21C19	4100	4/29	115	49.4	72.9	45.8
New Muddy River	22C06	1400	4/26	0	0.0	0.0	0.8
Old Man Pass	21D19	3100	4/28	44	18.6	27.0	12.6
Plains Of Abraham +	22C01a	4400	4/26	182	80.1	120.4	76.9
Smith Creek Road	22C04	2100	4/26	15	7.4	6.1	5.3
Spencer Meadow +	21C20a	3400	4/26	51	23.5	43.2	16.1
Surprise Lakes	21C13A	4250	4/28	136	59.7	92.5	52.9
Table Mountain +	21C24a	4200	4/28	134	59.0	82.0	40.3
Timbered Peak +	21D18a	3000	4/28	36	15.8	25.0	9.9

COWLITZ RIVER

Cayuse Pass	21C06	5300	4/29	234	105.4	138.1	-
Mosquito Meadows	21C19	4100	4/29	115	49.4	72.9	45.8
Plains of Abraham +	22C01a	4400	4/26	182	80.1	120.4	76.9
Potato Hill	21C14	4500	4/29	98	42.4	53.7	-
White Pass (E. Side)	21C28	4500	4/15	88	34.0	45.4	26.0
			5/1	80	33.6	45.3	25.9
White Pass (L. Lake)	21C27	4500	4/29	90	39.3	49.5	28.6

PUGET SOUND DRAINAGENISQUALLY RIVER

Ghost Forest	21C04	4550	4/24	125	61.1	80.7	-
Longmire	21C03	2760	4/24	17	7.6	10.8	-
New Paradise Park	21C35	5500	4/24	209	93.0	127.8	-
Stem Glade	21C01	5050	4/24	195	84.4	110.0	-

WHITE RIVER

Cayuse Pass	21C06	5300	4/29	234	105.4	138.1	-
Corral Pass	21C13	6000	4/29	136	58.4	-	-
Morse Lake	21C17	5400	4/29	162	88.1	-	65.1

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO MAY 1, 1975 - APPENDIX 7

SNOW DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average $\frac{+}{\#}$

GREEN RIVER

Cougar Mountain SP	21B42SP	3200	4/29	65	30.7	26.0	-
Snowshoe Butte SP	21B43SP	5000	4/15	Not Measured		89.2	-
			4/29	180	76.5	100.0	-
Stampede Pass SP	21B10	3860	4/15	-	53.8	65.7	43.4
			5/1	-	55.0	62.1	43.4

SNOQUALMIE RIVER

Olallie Meadows	21B02	3625	4/15	138	64.8	91.3	48.4
			4/29	145	66.5	91.6	48.6

SKYKOMISH RIVER

Stevens Pass	21B01	4070	4/15	150	67.6	83.2	55.2
			4/29	146	69.2	82.6	55.8
Stevens Pass Sand Shed	21B45	3700	4/15	105	48.9	63.4	-
			4/29	101	48.7	59.6	-

SKAGIT RIVER

Beaver Creek Trail	21A04	2200	4/28	32	13.2	7.3	4.8
Beaver Pass	21A01	3680	4/28	80	35.0	50.3	34.0
Brown Top	21A28a	6000	4/28	161	71.2	98.0	-
Cloudy Pass	20A22a	6500	5/1	Not Measured		-	-
Devils Park	20A04	5900	4/27	126	55.1	67.6	49.5
Freezeout Cr. Trail	20A01	3500	4/27	33	12.9	15.8	8.2
Freezeout Meadows New	20A38	5000	4/28	102	44.0	79.2	31.0
Granite Creek	21A29	3500	4/27	45	19.0	20.8	-
Harts Pass	20A05A	6500	4/28	127	53.9	72.9	50.7
Klesilkwa	35B-Can	3700	5/1	Not Measured		16.9	11.3*
Meadow Cabins	20A08	1900	4/27	9	3.8	0.0	1.3
New Hozomeen Lake	21A30	2800	4/28	31	10.6	11.5	-
New Tashme	26A-Can	2500	4/29	24	10.5	1.1	5.6*
Quartette Lake	34-Can	4000	4/26	36	9.9	13.8	- *
Rainy Pass	20A09	4780	4/27	110	49.8	60.6	44.3
Thunder Basin	20A07	4200	4/27	97	42.1	33.9	25.5

BAKER RIVER

Baker Pass +	21A27a	4900	4/13	218	98.0	133.0	-
			4/29	222	99.9	135.0	-
Dock Butte	21A11A	3800	4/13	174	78.0	106.0	64.0
			4/29	172	78.8	106.8	77.4

Average based on 1958-72 average

* Average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO MAY 1, 1975 - APPENDIX 8

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average [#]

BAKER RIVER (Cont.)

Easy Pass	21A07A	5200	4/13	204	92.0	117.0	86.7
			4/29	224	101.0	126.3	93.3
Jasper Pass	21A06A	5400	4/13	228	102.0	133.0	91.1
			4/29	232	104.2	134.2	102.7
Komo Kulshan	21A17	800	4/29	0	0.0	0.0	0.7
Marten Lake	21A09A	3600	4/13	194	87.0	129.0	80.4
			4/29	194	86.5	122.3	83.8
Mount Blum +	21A18a	5800	4/13	178	80.0	95.0	-
			4/29	180	81.0	97.0	-
Panorama New	21A26	4300	4/14	180	82.7	114.7	-
			4/28	189	83.7	146.1	-
Rocky Creek	21A12A	2100	4/13	96	43.0	48.0	25.5
			4/30	81	37.6	37.4	22.6
Schreibers Meadow	21A10A	3400	4/13	145	65.0	97.0	63.0
			4/29	158	73.8	100.4	67.5
S. F. Thunder Creek	21A14A	2200	4/13	35	16.0	10.0	1.7
			4/30	13	5.7	0.0	1.1
Sulphur Creek	21A13	1600	4/30	32	14.1	7.0	6.4
Three Mile Creek	21A15	4500	4/30	0	0.0	0.0	0.0
Watson Lakes	21A08A	4500	4/13	170	76.0	95.0	72.9
			4/29	181	77.2	98.8	76.9

NOOKSACK RIVER

Panorama New	21A26	4300	4/14	180	82.7	114.7	-
			4/28	189	83.7	146.1	-

OLYMPIC PENINSULAMORSE CREEK

Cox Valley	23B14	4500	4/28	102	45.1	55.4	-
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ELWHA RIVER

Hurricane	23B03	4500	4/27	71	28.1	31.1	26.9
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SKOKOMISH RIVER

Black & White	23B07	4200	4/27	128	53.2	68.2	-
Black & White Lakes	23B06	4700	4/27	160	72.6	101.6	-
Home Sweet Home	23B05	5200	4/27	194	80.8	126.2	-

[#] Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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